

IN THE CLAIMS

1. (Currently amended) A method of controlling the switching of an optically addressable spatial light modulator (OASLM) having a photosensitive layer able to be driven in both a photosensitive direction and non-photosensitive direction, ~~to a first surface of which a write light signal is applied and to a second surface of which a read light signal is applied~~, the method comprising:

applying a bipolar switching waveform to control electrodes of the OASLM during ~~each~~ a write cycle such that ~~the~~ a leading pulse of the waveform applies a voltage across the OASLM which is in the photosensitive direction and ~~the~~ a trailing pulse applies a voltage which is not in the photosensitive direction, wherein the trailing pulse causes switching between stable states of the OASLM.

2. (Currently amended) ~~A~~ The method according to claim 1, wherein the amplitude of the leading pulse is less than that of the trailing pulse ~~shape and amplitude of the bipolar pulse are such that the trailing pulse causes switching between stable states.~~

3. (Currently amended) ~~A~~ The method according to claim ~~2~~ 1, wherein the shape and amplitude of the bipolar pulse switching waveform are such that the leading pulse causes substantially no switching between stable state ~~states~~.

4. (Currently amended) ~~A~~ The method according to claim 1, wherein the bipolar switching waveform includes no more than two sequential pulses ~~switching waveform has an asymmetric shape.~~

5. (Currently amended) ~~A~~ The method according to claim ~~4~~ 1, wherein the duration of the leading pulse is less than that of the trailing pulse ~~and/or the amplitude of the leading pulse is less than that of the trailing pulse.~~

6. (Currently amended) A method of controlling the switching of an optically addressable spatial light modulator (OASLM) having a photosensitive layer able to be driven in both a photosensitive direction and a non-photosensitive direction, ~~to a first surface of which a write light signal is applied and to a second surface of which a read light signal is applied~~, the

method comprising:

applying a blanking pulse in the photosensitive direction to cause the OASLM to switch to a first state;

applying a bipolar switching waveform to control electrodes of the OASLM during each write cycle, ~~one of the pulses wherein a leading pulse of the switching waveform causing illuminated areas of the OASLM to substantially switch from a first to a second state whilst causing substantially no switching of unilluminated areas~~ is also applied in the photosensitive direction, and ~~the other wherein a trailing pulse of the bipolar waveform causing~~ is applied in the non-photosensitive direction and causes unilluminated areas of the OASLM to substantially switch from the ~~second to the first state~~ to an opposite state whilst causing substantially no switching of illuminated areas.

7. (Currently amended)-~~A~~ The method according to claim 6, wherein the pulse amplitudes and widths are chosen to lie within that region of pulse amplitude/width space which is substantially bounded by:

- a) a line defining between 95% and 100% switching of illuminated areas to ~~said first~~ the leading pulse of the bipolar waveform; and
- b) a line defining between 0% and 5% switching of unilluminated areas to ~~said second~~ the trailing pulse of the bipolar waveform.

8. (Currently amended)-~~A~~ The method according to claim 6, wherein the pulse amplitudes and widths are chosen to lie within that region of pulse amplitude/width space which is substantially bounded by:

- a) a line defining between 95% and 100% switching of unilluminated areas to ~~said first~~ the leading pulse of the bipolar waveform; and
- b) a line defining between 0% and 5% switching of illuminated areas to ~~said second~~ the trailing pulse of the bipolar waveform.

9. (Currently amended)-~~A~~ The method according to claim 6, wherein ~~each~~ the bipolar switching waveform is preceded by a blanking pulse which switches the entire OASLM to ~~either said first or second~~ an illuminated state.

10. (Currently amended)~~A~~ The method according to claim 6, wherein the bipolar switching waveform is not preceded by a blanking pulse which switches the entire OASLM to a nonilluminated state.

11. (Currently amended)~~A~~ The method according to claim 6, wherein the blanking pulse is completed prior to the leading pulse switching waveform has an asymmetric shape.

12. (Currently amended) ~~A method of controlling the switching of an~~ An optically addressable spatial light modulator (OASLM) ~~having comprising:~~

~~a photosensitive layer able to be driven in both a photosensitive direction and a non-photosensitive direction, to a first surface of which a write light signal is applied and to a second surface of which a read light signal is applied, the method comprising:~~

wherein switching between stable states is performed by applying an asymmetric bipolar switching waveform to control electrodes of the OASLM during each a write cycle, and wherein a switching between stable states is caused by a trailing pulse of the bipolar switching waveform that includes a polarity in the non-photosensitive direction.

13. (Currently amended)~~A method~~ The OASLM according to claim 12, wherein the polarity of the leading pulse of the bipolar waveform is in the photosensitive direction.

14. (Currently amended)~~A method~~ The OASLM according to claim 12, wherein the pulse width ratio between the leading pulse and the trailing pulse is at least 1:4.

15. (Currently amended)~~A method~~ The OASLM according to claim 12, including ~~wherein the OASLM comprises~~ a liquid crystal having a response time for switching between first and second states which depends upon the voltage across the liquid crystal layer, the response time having a minimum at a given voltage.

16. (Currently amended)~~A~~ The method according to claim 1, wherein the bipolar pulse switching waveform causes unilluminated areas to switch and does not switch illuminated areas.

17-18 (Cancelled)

19. (Currently amended) A display system comprising:
an optically addressable spatial light modulator (OASLM) having a photosensitive layer able to be driven in both a photosensitive direction and a non-photosensitive direction;
means for applying a write light signal to a first surface of the OASLM;
means for applying a read light signal to a second surface of the OASLM; and
OASLM control means for applying a bipolar switching waveform to control electrodes of the OASLM during each write cycle such that in use ~~the~~ a leading pulse of the waveform applies a voltage across the OASLM which is in the photosensitive direction, and ~~the~~ a trailing pulse of the waveform applies a voltage which is not in the photosensitive direction, where the trailing pulse causes the electrodes to switch between stable states.

20-21. (Cancelled)

22. (New) The OASLM according to claim 12, wherein the amplitude of the leading pulse is less than that of the trailing pulse.

23. (New) The system according to claim 19, wherein the amplitude of the leading pulse is less than that of the trailing pulse.

24. (New) The system according to claim 19, wherein the shape and amplitude of the bipolar switching waveform are such that the leading pulse causes substantially no switching between stable states.

25. (New) The system according to claim 19, wherein the duration of the leading pulse is less than that of the trailing pulse